



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200  
Fax 613 632-5246

# Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO040616	MES002-VC	2		1 Net 30	M6061T6S.063	6061-T6 .063 Sheet: MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A- 250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf				96	8/10/2018	96		S101049	Stock	8/9/2018	\$ 9.20 / sf	11		\$883.35	Metaux Solutions
		3			M5052H32S.032	5052-H32 .032 Sheet: MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A- 250/8 OR AMS 4016 OR ASTM B209 receive sf				64		64		S101050	Stock	8/9/2018	\$ 4.45 / sf	11		\$284.60	Metaux Solutions
		4			MT-4140-B-0.500X0.500	4140 Steel Bar 0.500 X 0.500 : AISI 4140 STEEL BAR PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S- 5626 MINIMUM ROCKWELL C = 28 RC MAXIMUM ROCKWELL C = 32 RC receive ft				10		5		S101051	Stock	8/9/2018	\$ 7.50 / ft	11		\$37.50	Metaux Solutions
		5			MT-4140-S-1.500X4.000	4140 Steel Sheet 1.500 X 4.000 : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395				6		6		S101052	Stock	8/9/2018	\$ 64.77 / ft	11		\$388.60	Metaux Solutions

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
		6			MT-A500-TS-0.750W.065	A500 Square Tubing 0.750" x.065" wall : MATERIAL : ASTM A500 STEEL SQUARE TUBING SPECIFICATION: ASTM A500 OR ASTM A513 MT-A500-TS-[A.AAA]W[T.TTT] receive ft				20	8/20/2018	20		S103410	Stock	8/10/2018	\$ 1.80 / ft	10		\$36.00	Metaux Solutions
										<b>Total:</b>	<b>196</b>	<b>191</b>								<b>\$1,246.67</b>	

Plex 8/20/2018 8:55 AM dart.Tollis Andrew

## Shipping Order

06/08/2018

METAUX SOLUTIONS INC  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL, QUEBEC  
J4N 1L7  
Tel.: 450 641-3330

Order : 137136  
Reference : 40616  
Ship : PICK UP / PICK UP

Customer: 6323336

## Ship To

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

Same

Tel.: 1 613 632-3336

Item No.	Description	Qty	Qty. Deliver	B/O Qty
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
AS04061	ALU SHE .040 6061-T6 (18G) 3 X 4' X 12' ***** HT:	144	<u>Ø</u>	<u>144</u>
AS063614'X8'	ALU SHE .063" X 4' X 8' 6061-T6 3 PCES ***** HT: 61011/01/00 AT	3	<u>3</u>	<u>Ø</u>
AS03252	ALU SHEE .032 X 4' X 8 5052H32 2 PCES***** HT: G-18020681 AT	2	<u>2</u>	<u>Ø</u>
MSQ1241CD	4140 SQU .500 CD 2 X 5' HT: 4585-A AT	10	<u>5</u> only received	<u>Ø</u>
MP11241H	4140 HTSR PLATE 1.5" THICK 1 X 4" X 72" HT: 95008 AT	134	<u>134</u>	<u>4</u>
CREW3434065	CREW TUB>.750 X .750 X .065 1 X 20' HT: 615973 AT	20	<u>20</u>	<u>Ø</u>
	SHIP JOURNEY COLLECT JP			

Shipping : \_\_\_\_\_  
Package No : \_\_\_\_\_

Ref. : \_\_\_\_\_

Merchandise Received: \_\_\_\_\_



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO040616**

**Supplier:** MES002-VC  
Metaux Solutions  
2625 boul Jacques-Cartier Est  
Longueuil  
QC  
J4N 1L7 Canada  
Phone: 800 558 8858  
Fax: 514 633 8044

**PO No:** PO040616  
**PO Date:** 7/26/18  
**Due Date:** 8/13/18  
**Purchase Order Revision:**  
**Revision Date:**  
**Ship-To Contact:** Lavoie, Chantal  
clavoie@dartaero.com

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

*REVISED*

## Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1		M6061T6S.040		6061-T6 .040 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	-	8/30/18	144 sf	0 sf	144 sf	\$4.6010416/sf	\$662.55
4		MT-4140-B-0.500x0.500		4140 Steel Bar 0.500 X 0.500 : AISI 4140 STEEL BAR PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MINIMUM ROCKWELL C = 28 RC MAXIMUM ROCKWELL C = 32 RC receive ft	Partial	-	8/10/18	10 ft	5 ft	5 ft	\$7.50/ft	\$37.50

Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6 A1		MT-A500-TS-0.750W.065		A500 Square Tubing 0.750" x.065" wall : MATERIAL: ASTM A500 STEEL SQUARE TUBING SPECIFICATION: ASTM A500 OR ASTM A513 MT-A500-TS-[A.AAA]W[T.TTT] receive ft	Firmed	-	8/17/18	20 ft /	0 ft 20 ft	20 ft	\$1.80/ft A 18/00	\$36.00
Grand Total:												\$736.05

## Order Notes

## Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 8/17/18 11:28 AM dart.lavoie.chantal



# WELDED TUBE OF CANADA CORP.

111 RAYETTE ROAD  
CONCORD, ONTARIO L4K 2E9  
FAX: (905) 738-4070  
TEL: (905) 669-1111  
TOLL FREE: 1-800-565-TUBE (8823)

TEST REPORT  
REPORT # 21006

NUMBER/ROLLING : 21006

DATE/TIME OF TEST : 1/23/10

PAUL: 1

*Metallux Solutions*

*PO 040616*

*CREW TUB*

REF P.O. WTC BOLA SHIP DATE WTC ITEM#  
DESCRIPTION

*HT: 615973*

3295 572011 1/23/10 923201

*ASIN A132 AWB, ERW, 150, 150-100-250, 800  
ER WELDED STEEL TUBE*

## CHEMICAL COMPOSITION

TYPE	C	MM	P	S	SI	CU	NI	CR	MO	CO	W	VO	TI	N	B	AL	CU	CE
HEAT	.035	.157	.018	.005	.024	.009	.004	.017	.002	.004	.004	.001	.001	.000	.000	.020	.000	.000
HEAT	.041	.178	.019	.012	.017	.008	.005	.017	.002	.003	.003	.002	.002	.000	.000	.040	.000	.000

1 + FIRM/031/24/CU/15+NI/20+CR+MO+CO/15+02)

TV OF ORIGIN CANADA  
NOT CONTAIN MERCURY, CADMIUM OR LEAD.

Full inquiries to: [vw@weldedtube.com](mailto:vw@weldedtube.com)

100% CERTIFY THAT THE PRODUCT WAS MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE  
1. Edition of the specification at time of manufacture and any other requirements designated on  
increase, order of contract. The tests were found to meet all such requirements.  
Inspection certificate is in accordance with EN 10204 3.1.

1. Editions par la présente que le produit a été fabriqué, échantillonné, testé et inspecté  
1. Édition de la dernière édition de la spécification au moment de la fabrication et de toutes les autres  
1. Les désignations sur le bon de commande ou contrat. Les essais conformément, et respectent toutes les  
1. Certificat d'inspection a été établi en conformité avec la norme EN 10204 3.1.

ref: 40616

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ASTM A500 STEEL SQUARE TUBING

SPECIFICATION:

ASTM A500 OR ASTM A513

PART NUMBER:

MT-A500-TS-[A.AAA]WT.TTT

WHERE A.AAA IS WIDTH IN INCHES

WHERE T.TTT IS WALL THICKNESS IN INCHES

EG. 5/8" SQUARE TUBING WITH .065" WALL THICKNESS = MT-A500-TS-0.625W0.065

TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	DESCRIPTION	DATE	BY	APPROVED
A	NEW ISSUE	11/09/08	VM	WM

<b>DART</b> AEROSPACE		Holding Order Change	
TITLE ASTM A500 STEEL SQUARE TUBING			
DWG NO.		REV	
DESIGN BY: VM 09/02/2017		A	
DRAWN BY: SAC 09/02/2017		2X 21	
CHECKED: VM 09/09/2017		1. DIMENSIONS ARE IN INCHES	
DATE: 09/11/2017		2. UNLESS OTHERWISE SPECIFIED	
APPROVED: VM 09/12/2017		3. ASME Y14.5M-2009 TOL FOR	
DATE: 9/12/2017		4. ALL DIMENSIONS APPLY	
SCALE: NTS WEIGHT N/A		SHEET 1 OF 1	
COPYRIGHT © 2011 BY DART AEROSPACE LTD			
THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR THE PURPOSES OF WHICH IT WAS PREPARED AND NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.			

CA 17-649

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-A500-75-0.750w.065

PO / BATCH NO.: P0040616/S103410

DATE: 18/08/20

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.750"

QUANTITY RECEIVED: 20'

THICKNESS RECEIVED: 0.750"

QUANTITY INSPECTED: 20'

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	ASTM A513
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	MT: 615973
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.  
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>	<b>ENGINEERING SIGNOFF (if required)</b>
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/08/20</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



## Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 85150377 01 / 4

Rev.: 0

Seite / page: 1 von / of 2

Datum / date: 2015 11 10

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

<b>Auftraggeber / customer:</b> Métaux Solutions inc. 2625, Boul. Jacques Cartier Est Longueuil, Qc. J4N 1L7	<b>Bestell Nr. / order no.:</b> C 70532 <b>Datum / date:</b> 2015 05 20
<b>Warenempfänger / consignee:</b> Métaux Solutions inc. 2625, Boul. Jacques Cartier Est Longueuil, Qc. J4N 1L7	<b>Auftragsbest. Nr. / order confirm no.:</b> 693391 <b>Datum / date:</b> 2015 05 21
	<b>Lieferschein Nr. / delivery note:</b> 85150377 <b>Datum / date:</b> 2015 11 30

Produkt / product	Bedingungen / terms
Form / form: Sheet Werkstoff / material: 6061 Zustand / temper: T6 Dim. / dim.: [inch]: 0,063x48,00x96,00	Technische Lieferbedingungen / techn. spec.: AMS-QQ-A-250/11, 08.1997 ASTM B 209- 14 AMS 4027N, 07.2008 Cessna CMMP019, Rev. D, 09-07-01 Cessna CMMP025, Rev. V, 2-20-15 Sondervorschrift / special terms:

AB-Pos. ord.-item	BNr/Los/Teillos Lot/No/Part	Guss Nr. cast no.	Werkstoff material	Kollo pack/no	Gewicht netto weight net	Stk. pcs.
06	61011/01/00	01/0072091/5	6061	6933910027	2409,612 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910028	2414,021 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910029	2414,021 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910030	2414,021 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910031	2416,226 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910032	2416,226 lbs	85
06	61011/01/00	01/0072091/5	6061	6933910033	1560,847 lbs	55

Chemische Zusammensetzung (%) Gewichtanteile / Chemical composition (%) weight proportion (OES)											
Guss Nr. / cast no.	material	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total
01/0072091/5	6061	0,40	-	0,15	-	0,80	0,04	-	-	-	-
	spec. min.	0,80	0,70	0,40	0,15	1,20	0,35	0,25	0,15	0,05	0,15
	actual	0,68	0,44	0,24	0,12	0,88	0,18	0,06	0,03	0,02	0,03

Zugprüfung LT / tensile test LT							
BNr/Los Lot/No.	Zustand temper	Richtung direction	Tests	UTS [ksi]	YS [ksi]	A2" [%]	
			spec.min.	42,0	35,0	10	
			spec.max.	-	-	-	
61011/01	T6	LT	8	from 48,6	42,4	13	
61011/01	T6	LT		to 49,0	42,9	15	

D670362  
D670363  
D670364  
D670365  
D670366  
D670367  
D670368

## Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate - mill certificate

Nr.: 85150377

01 / 4

Rev.: 0

Seite / page:

2 von / of 2

Datum / date:

2015 11 10

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

<b>Sonstige Prüfungen / other tests:</b>
Biegeversuch: OK. / Transverse bend test: OK.
Maßkontrolle: OK. / Dimensional Check: OK.
Oberfläche: OK. / Surface inspection: OK.
<b>Bemerkungen / notes:</b>
Die Dimensionstoleranzen entsprechen ANSI XXX / As standard, dimensional tolerances are to ANSI XXX

Ausgestellt nach Airbus Zulassung Nr. 30272.

Wir bestätigen, dass die gesamte Lieferung unter Einhaltung und soweit oben nicht anders dargelegt aller Forderungen (Spezifikationen, Zeichnungen, Aufträge) hergestellt und geprüft wurde.

Das Qualitätsmanagementsystem erfüllt die Anforderungen der AUK/SA/001-3.

Hergestellt, kontrolliert und geprüft nach Hawker Beechcraft HBIFSAS/PART3/0771

Agusta Westland Genehmigung Lieferantennummer V21275

Issued under Airbus Approval No. 30272.

Certified that the whole of the supplies detailed hereon have been manufactured, inspected, tested and unless otherwise stated above conform in all respects to the Specifications, Drawings and Contract.

Order relevant thereto The Quality Management System arrangements in respect of these supplies comply with the requirements of AUK/SA/001-3.

Manufactured, inspected and tested according Hawker Beechcraft HBIFSAS/PART3/0771

Agusta Westland approval supplier code V21275

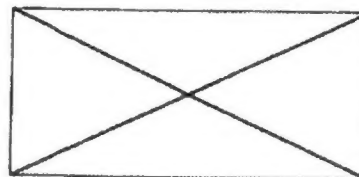
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.

We hereby certify that the material described above has been tested and complies with the terms of the order contract.

<b>Werkstattverständiger / factory specialist</b>	<b>E-Mail / e-mail</b>
Klampfer Josef	josef.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin.

Maschinell erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.



# SPECIFICATION CONTROL DRAWING

**PURCHASE MATERIAL:** 6061-T6/62T651 ALUMINUM SHEET OR PLATE  
**SPECIFICATION:** QQ-A-250/11 OR AMS-QQ-A-250/11  
OR AMS 4025 OR 4027  
OR ASTM B209

**PART NUMBER:** M6061T6S | XXX | X | W | WWW |  
THK | WIDTH |

WHERE "XXX" = THICKNESS (IN INCHES)  
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)  
EG. 0.063" THICK SHEET = M6061T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M6061T6S.500X3.500  
XXX BY 4FT BY 8FT FOR SHEET

**PREFERRED SIZE:**

C	ADD PLATE AND T651 SPEC	ML	17 12 13
B	REFORMAT DWG. ADD B209 SPEC (ZN DB-1). REF PART 08-020A	CP	09 07 13
A	NEW ISSUE	RF	01 08 08
REV	DESCRIPTION	BY	DATE
DESIGN	DS	ML	DATE
DRAWN	ML	NO	DATE
CHECKED	NO	JFS	DATE
MFG. APPR	JFS	HS	DATE
APPROVED	HS	CP	DATE
DE APPR	CP	CP	DATE
DATE	17.12.13		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA  
DRAWING NO. M6061T6S  
SHEET 1 OF 1  
REV. C  
SCALE NTS  
6061-T6 SHEET/PLATE SPEC  
COPYRIGHT © 2001 BY DART AEROSPACE LTD  
ALL RIGHTS RESERVED

**APPROVED**  
2018 MAR 13 4  
EJS 18-606

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6S.063  
 DATE: 18/08/10

PO / BATCH NO.: P0040616 / S/01044

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 965t  
 QUANTITY INSPECTED: 965t  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.063'  
 THICKNESS RECEIVED: 0.063''  
 SHEET SIZE ORDERED: 4'x8'  
 SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	N	
CORROSION	Y	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	N	ASTM B209
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	HT: 6/01/01/00
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>AT</u>		SIGNED OFF BY: _____	
DATE: <u>18/08/10</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# HENAN WINOW IMPORT & EXPORT CO., LTD

OFFICE ADD: NO. 1407, BUILDING YUNFENG, SOUTH DONGFENG ROAD, ZHENGZHOU NEW DISTRICT.  
ZHENGZHOU CITY, HENAN PROVINCE, 450001 P.R. CHINA

## TEST CERTIFICATE

INVOICE NO.: WMS180111-1

PO NO.: 2211 2222 2233

DATE: 19-Mar-18

Description of goods		ALUMINUM SHEETS	Alloy and Temper		3003H14/H22 5052						
Technique Standard		ASTM B209/B632/AMS 4016 QQA 250/2 and AMS 4008 AMS QQ-A-250/8 and QQA 250/2	Chemical Composition Standard		H32 ASTM B209/B632/AMS 4016 QQA 250/2 and AMS 4008 AMS QQ-A-250/8 and QQA 250/2						
Chemical Composition											
Lot No.	Alloy & Temper	Dimension	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
G-18010428	3003H22	0.188"x60"x120" (4.775x1524x3048mm)	0.102	0.465	0.087	1.1	0.006	0.004	0.008	0.018	R
G-18010428	3003H22	0.188"x60"x144" (4.775x1524x3657mm)	0.102	0.465	0.087	1.1	0.006	0.004	0.008	0.018	R
G-18010420	3003H14	0.25"x60"x120" (6.35x1524x3048mm)	0.07	0.411	0.065	1.18	0.002	0.018	0.009	0.029	R
1802008	3003H14	0.1"x48"x96" (2.54x1219x2438mm)	0.058	0.413	0.071	1.16	0.024	0.02	0.009	0.022	R
G-18020681	5052H32	0.032"x48"x96" (0.813x1219x2438mm)	0.074	0.25	0.013	0.088	2.3	0.19	0.002	0.022	R
G-18020681	5052H32	0.032"x48"x120" (0.813x1219x3048mm)	0.074	0.25	0.012	0.087	2.29	0.19	0.002	0.022	R
G-18020433	5052H32	0.050"x60"x120" (1.27x1524x3048mm)	0.077	0.26	0.021	0.088	2.31	0.18	0.001	0.021	R
G-18010944	5052H32	0.080"x48"x120" (2.032x1219x3048mm)	0.071	0.25	0.019	0.093	2.31	0.17	0.002	0.031	R
G-18010944	5052H32	0.09"x48"x96" (2.286x1219x2438mm)	0.071	0.25	0.019	0.093	2.31	0.17	0.002	0.031	R
G-18010919	5052H32	0.125"x60"x96" (3.175x1524x2438mm)	0.077	0.26	0.026	0.088	2.33	0.18	0.001	0.019	R
G-18010919	5052H32	0.125"x60"x120" (3.175x1524x3048mm)	0.077	0.26	0.026	0.088	2.33	0.18	0.001	0.019	R
G-18010865	5052H32	0.125"x60"x120" (3.175x1524x3048mm)	0.081	0.27	0.031	0.087	2.35	0.17	0.002	0.02	R
G-18010919	5052H32	0.125"x60"x144" (3.175x1524x3657mm)	0.077	0.26	0.026	0.088	2.33	0.18	0.001	0.019	R
G-18020177	5052H32	0.188"x48"x96" (4.775x1219x2438mm)	0.091	0.31	0.035	0.089	2.29	0.19	0.001	0.021	R
G-18020177	5052H32	0.188"x48"x120" (4.775x1219x3048mm)	0.091	0.31	0.035	0.089	2.29	0.19	0.001	0.021	R

G-18020177	5052H32	0.188"x48"x144" (4.775x1219x3657mm)	0.091	0.31	0.035	0.089	2.29	0.19	0.001	0.021	R
G18010943	5052H32	0.25"x48"x120" (6.35x1219x3048mm)	0.081	0.23	0.015	0.078	2.33	0.18	0.001	0.018	R
G-18010943	5052H32	0.25"x48"x144" (6.35x1219x3657mm)	0.071	0.26	0.025	0.085	2.31	0.17	0.003	0.02	R

### Mechanical Property

Lot No.	Alloy & Temper	Dimension	Tensile Strength(MPa)	Yield Strength(Mpa)	Elongation(%)
G-18010428	3003H22	0.188"x60"x120" (4.775x1524x3048mm)	145	/	16
G-18010428	3003H22	0.188"x60"x144" (4.775x1524x3657mm)	145	/	16
G-18010420	3003H14	0.25"x60"x120" (6.35x1524x3048mm)	178	/	17
1802008	3003H14	0.1"x48"x96" (2.54x1219x2438mm)	175	/	18
G-18020681	5052H32	0.032"x48"x96" (0.813x1219x2438mm)	248	204	7
G-18020681	5052H32	0.032"x48"x120" (0.813x1219x3048mm)	248	204	7
G-18020433	5052H32	0.050"x60"x120" (1.27x1524x3048mm)	225	176	16
G-18010944	5052H32	0.080"x48"x120" (2.032x1219x3048mm)	222	172	13
G-18010944	5052H32	0.09"x48"x96" (2.286x1219x2438mm)	222	172	13
G-18010919	5052H32	0.125"x60"x96" (3.175x1524x2438mm)	226	165	18
G-18010919	5052H32	0.125"x60"x120" (3.175x1524x3048mm)	226	165	18
G-18010865	5052H32	0.125"x60"x120" (3.175x1524x3048mm)	225	166	14
G-18010919	5052H32	0.125"x60"x144" (3.175x1524x3657mm)	226	165	18
G-18020177	5052H32	0.188"x48"x96" (4.775x1219x2438mm)	210	183	15
G-18020177	5052H32	0.188"x48"x120" (4.775x1219x3048mm)	210	183	15
G-18020177	5052H32	0.188"x48"x144" (4.775x1219x3657mm)	210	183	15
G18010943	5052H32	0.25"x48"x120" (6.35x1219x3048mm)	216	188	17
G-18010943	5052H32	0.25"x48"x144" (6.35x1219x3657mm)	216	188	17

HENAN WINOW IMPORT & EXPORT CO., LTD

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Sally

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 5052-H32 ALUMINUM SHEET

SPECIFICATION: QQ-A-250/B OR AMS-QQ-A-250/B  
OR AMS 4046  
OR ASTM B209

PART NUMBER M5052H32S | XXX | THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M5052H32.063

PREFERRED SIZE: XXX BY 4FT BY 8FT

**RELEASED**  
R 2009-10-30  
AWP

D	REFORMAT DWG. ADD B208 SPEC (ZN D8-1), PAR 08-020A	CP	09.09.26
A	NEW ISSUE	DS	01.06.08
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG APPR			
APPROVED			
DE APPR			
DATE	09.09.26		

<b>DART AEROSPACE LTD</b>	
HAWKESBURY, ONTARIO CANADA	
DRAWING NO	M5052H32S
TITLE	5052-H32 SHEET SPEC
REV B	SHEET 1 OF 1
SCALE	NTS
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ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE LTD.	

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M5052H325.032

PO / BATCH NO.: P0040616/5101050

DATE: 18/08/10

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.032"

QUANTITY RECEIVED: 645F

THICKNESS RECEIVED: 0.032"

QUANTITY INSPECTED: 645F

SHEET SIZE ORDERED: 4'x8'

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	N	ASTM B209
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	MT: G-18020681
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/08/10</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



CERTIFICAT D'ANALYSE

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

2 août 2018

Part Number/Description		Shipped Qty
MST15000		2,153 Pounds
Plate 1-1/2 4140/42 Prehard		
34.06250 x 146.18750 ASTM A-829 → Structural Steel Plate DFARS Compliant Country of Origin: SLOVENIA Lot: 427218A		PM Heat: 95008 BHN: 307 = HRC ≈ 32
C: 0.4100	Mn: 0.7760	P: 0.0090
Cr: 0.9800	Mo: 0.1500	S: 0.0010
		Si: 0.2230
		Cu: 0.2210
		V: 0.0420
		Ni: 0.1200

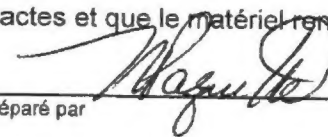
ITEM 5: 1 X 4" X 72"

COMMANDE: 137136

REF: 40616

Métaux Solutions inc. certifie que les analyses sur ce document sont exactes et que le matériel rencontre les spécifications énumérées.

Préparé par



REV.	DESCRIPTION	ECH #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
 MINIMUM ROCKWELL C = 28 Rc  
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-(T.TTT) x (W.WWW)  
 WHERE "T.TTT" = THICKNESS IN INCHES  
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
 EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500



TITLE		AISI 4140 / 4142 STEEL SHEET OR PLATE	
PART NO.	REV.		
MT-4140-S	A		
DIMENSIONS ARE IN INCHES DIMENSIONS ARE IN MILLIMETERS DIMENSIONS APPLY AFTER FINISHING			
DESIGNED BY:	INITIALS AND DATE	TOLERANCES	
VM 2/13/2018		FRACTIONS ± 1/8	
CHECKED BY:		DECIMALS ± 0.01	
VM 02/13/2018		SURFACE	
MPG REVIEW BY:		ROUGHNESS	
DO 02/13/2018		SCALE: INTS	
APPROVED BY:		SHEET 1 OF 1	
ML 02/14/2018		COPYRIGHT © 2018 BY DART AEROSPACE LTD	

*Noted*

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-5-1.500x4.000  
 DATE: 18/08/17

PO / BATCH NO.: P0040616/5101052

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 64  
 QUANTITY INSPECTED: 64  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500"  
 THICKNESS RECEIVED: 1.500"  
 SHEET SIZE ORDERED: —  
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	N	
CORROSION	Y	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	N	<u>ASTM A29</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	<u>MT-95008</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/08/17</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in